1. (Amended) A multi-chamber load-locking device for transferring wafers between a first-pressure area and a second-pressure area, said device having an interior divided into (i) an upper chamber and (ii) a lower chamber, both of which are for transferring wafers at the second pressure which is higher than the first pressure, and (iii) an intermediate section located between the upper chamber and the lower chamber, which is for loading/unloading wafers at the first pressure, said device comprising (a) a single divider plate having an upper side and a lower side, both of which are for temporarily supporting wafers, said plate moving reciprocally between an upper position and a lower position; (b) a cylindrical cam structure co-axially connected to said plate, wherein said plate moves between the first position and the second position by rotation of the cylindrical cam structure; and (c) a rotary actuator for rotating the cylindrical cam structure, said cam structure comprises (1) a cam cylinder having a cam groove which rotates with the rotary actuator, and (2) a support cylinder having a cam follower which support cylinder is attached to the plate and does not rotate, wherein the cam follower is fitted in the cam groove and moves vertically when the cam groove rotates, said support cylinder being provided inside or outside the cam cylinder, wherein

when the plate is at the upper position, the plate divides and seals the upper chamber from the intermediate section and the lower chamber, wherein the upper chamber is at the second pressure while both the intermediate section and the lower chamber are at the first pressure to cause a pressure difference exerting downward force on the plate, the cam follower being configured to be locked in the cam groove to withstand the downward force on the plate, whereby wafers at the upper side of the plate are transferred between the first-pressure area and the second-pressure area via the upper chamber, and

when the plate is at the lower position, the plate divides and seals the lower chamber from the intermediate section and the upper chamber, wherein the lower chamber is at the second pressure while both the intermediate section and the upper chamber are at the first pressure to cause a pressure difference exerting upward force on the plate, the cam follower being configured to be locked in the cam groove to withstand the upward force on the plate, whereby wafers at the lower side of the plate are transferred between the first-pressure area and the second-pressure area via the lower chamber

3. (Amended) The device as claimed in Claim 1, wherein the cam groove has a shape threaded into five sections constituted by (I) an upper horizontal section for locking the plate at the upper position, (II) a lower horizontal section for locking the plate at the lower position, (III) an intermediate section for moving the plate at a predetermined rate, (IV) an upper transition section for connecting the upper horizontal section and the intermediate section, and (V) a lower transition section for connecting the lower horizontal section and the intermediate section,

wherein the moving speed of the plate decreases immediately before sealing the upper chamber and the lower chamber with the plate when the cam follower is in the upper transition section and the lower transition section, respectively; the plate is locked upon sealing the upper chamber and the lower chamber when the cam follower is in the upper horizontal section and the lower horizontal section, respectively; and the plate moves vertically at a rate when the cam follower is in the intermediate section.

4. (Amended) The device as claimed in Claim 1, further comprising a vertical beam provided in parallel to the axis of the cam cylinder, and a sliding support which is affixed to the support cylinder and slides on the beam when the support cylinder moves vertically.

6. (Amended) The device as claimed in Claim 1, wherein the first pressure is a reduced pressure, and the second pressure is an atmospheric pressure.

7. (Amended) The device as claimed in Claim 1, which is adapted to be disposed between a loading station which places a wafer cassette accommodating semiconductor wafers, and a transfer chamber which conveys the semiconductor wafers, wherein the intermediate section is connected to the transfer chamber, and the upper chamber and the lower chamber are connected to the loading station.

8. (Amended) In a multi-chamber load-locking device which is placed between a loading station which places a wafer cassette which houses semiconductor wafers, and a transfer chamber which conveys said semiconductor wafers, and in which lock-loading device chamber space is divided into two chambers by the vertical motion of a single plate which contacts air-tightly a sealing surface of each of the two chambers,

an improvement comprising a cylindrical cam provided with the same axis as that of said chamber; and a rotary actuator dynamically connected with said cylindrical cam, wherein the turning moment of said rotary actuator is converted into the vertical thrust of said axis and said plate rises and descends,